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IN THE UNITED STATES DISTRICT COURT
 1
                   FOR THE NORTHERN DISTRICT OF OKLAHOMA
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     STATE OF OKLAHOMA, ex rel,
     W.A. DREW EDMONDSON, in his
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     capacity as ATTORNEY GENERAL
 5
     OF THE STATE OF OKLAHOMA,
     et al.
 6
               Plaintiffs,
 7
                                           No. 05-CV-329-GKF-SAJ
     V.
 8
     TYSON FOODS, INC., et al.,
 9
10
               Defendants.
11
12
                   REPORTER'S TRANSCRIPT OF PROCEEDINGS
13
                               MARCH 3, 2008
14
                       PRELIMINARY INJUNCTION HEARING
15
                                  VOLUME V
16
17
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     BEFORE THE HONORABLE GREGORY K. FRIZZELL, Judge
19
20
     APPEARANCES:
21
     For the Plaintiffs:
                           Mr. Drew Edmondson
                           Attorney General
                           Mr. Robert Nance
22
                           Mr. Daniel Lennington
                           Ms. Kelly Hunter Burch
23
                           Mr. Trevor Hammons
                           Assistant Attorneys General
24
                            313 N.E. 21st Street
                           Oklahoma City, Oklahoma 73105
25
                                                            EXHIBIT
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Glen R. Dorrough UNITED STATES COURT REPORTER

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1 MR. EDMONDSON: That's correct, Your Honor. 2 THE COURT: Attorney General Edmondson, you may call 3 your next witness. 4 MR. EDMONDSON: I call Dr. Robert Lawrence. 5 ROBERT SWAN LAWRENCE 6 Called as a witness on behalf of the plaintiffs, being first 7 duly sworn, testified as follows: 8 THE COURT: State your full name for the record, 9 please, sir. 10 THE WITNESS: Robert Swan Lawrence. 11 THE COURT: You may proceed. 12 DIRECT EXAMINATION 13 BY MR. EDMONDSON 14 Dr. Lawrence, would you please briefly describe your 15 educational background? 16 I obtained my bachelor's degree and my medical degree from 17 Harvard University, trained in internal medicine at the 18 Massachusetts General Hospital in Boston, spent three years as 19 an epidemic intelligence service officer with the CDC, one year 20 of it in Atlanta investigating outbreaks of parasitic and other 21 infectious diseases and two years of it in El Salvador doing 22 malaria epidemiology. 23 I then joined the faculty of the University of North 24 Carolina in Chapel Hill and spent four years directing a 25 program in community health. Then was recruited back to Boston

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water, air, odor, so there are social impacts for community
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     members. This is not as great a problem for the Illinois River
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     Watershed, but there are many parts of the country now where
3
     downwind of concentrated animal feeding operations, the air
 4
     quality from the point of view of contaminants in the air as
5
     well as from the problem of intense odor has become widespread.
 6
7
          And from where does that odor come?
     Ο.
          Well, the odor is part --
8
              MR. RYAN: Your Honor, I object. He said it doesn't
 9
10
     apply to the IRW.
              THE COURT: Sustained. We've all been to the
11
     panhandle, I believe. Go ahead.
12
13
              THE WITNESS: Shall I answer it?
              THE COURT: No, the objection is sustained. Go ahead.
14
15
          (By Mr. Edmondson) I'll rephrase the question.
                                                           Is there
      0.
     bacteria in the litter of the poultry waste?
16
          There are bacteria. There are other compounds, breakdown
17
     products of urine and feces, ammonia, hydrogen sulfide, nitrous
18
             It depends a little bit on the mix of what animal we're
19
     talking about as well as what kind of bedding or other organic
20
     material has been mixed in with the waste.
21
22
          Specific as to poultry waste, is there bacteria associated
      Q.
23
     with poultry waste?
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What nature of bacteria is associated with poultry waste?

24

25

Α.

Q.

Yes.

1170

1 Well, there are a broad range of organisms that have been

- 2 isolated from poultry waste. Salmonella and Campylobacter
- 3 species are among the more important human pathogens. E. coli,
- 4 Enterococci, there are species of Coccidioides that is not
- 5 infectious for humans, but is an important problem for growth
- 6 of the bird. So Arsenicals, Roxarsone and other organic
- 7 arsenic materials, are added to the poultry feed in order to
- 8 reduce the Coccidioides to enhance the growth of the bird.
- 9 There's also a Giardia species, again it's not the species that
- 10 happens to affect the humans, but it's present in poultry
- 11 waste.
- 12 0. Don't most of these bacteria die at some point in time?
- 13 Eventually, but many of them can live for three or four
- 14 months after being deposited by the bird.
- 15 0. What factors determine the length of viability of these
- 16 bacteria?
- 17 MR. RYAN: Your Honor, there's been no foundation for
- 18 this question of this witness. I object.
- 19 THE COURT: Sustained.
- 20 (By Mr. Edmondson) Are you able to state from the
- 21 materials you reviewed or from your own knowledge and expertise
- 22 whether these problems are present in the Illinois River
- 23 Watershed?
- 24 Yes, from what I have read, the story is very remarkably
- 25 similar to what I've directly observed on the eastern shore of